CONTENTS

Volume 16, Issue Nos. 17–24

STATISTICS IN MEDICINE

Issue No 17, 15 September 1997

Design for Sample Size Re-estimation with Interim Data for Double-blind Clinical Trials with Binary Outcomes 1913
W. J. Shih and P.-L. Zhao

Continuously Monitored Stopping Boundary Methodologies: the Issues of Sensitivity, Association and Trial Suspension 1925
E. N. Lazaridis and R. Gonin

A Graphical Assessment of the Potential Impact of Losses to Follow-up on the Validity of Study Results 1943
J. P. Matts, C. A. Launer, E. T. Nelson, C. Miller, B. Dain and the Terry Beirn Community Programs for Clinical Research on AIDS

Treatment–Patient Interactions for Diagnostics of Cross-over Trials 1955
J. K. Lindsey and B. Jones

Meta-analysis for the Evaluation of Potential Surrogate Markers 1965
M. J. Daniels and M. D. Hughes

Regression Analysis of Discrete Time Survival Data under Heterogeneity 1983
X. Xue and R. Brookmeyer

Modelling Population Heterogeneity in Sensitivity and Specificity of a Multi-stage Screen for Objective Sleep Apnoea 1995
T. R. Ten Have and E. O. Bixler

Estimating the Mean Hazard Ratio Parameters for Clustered Survival Data with Random Clusters 2009
J. Cai, H. Zhou and C. E. Davis

LETTERS TO THE EDITOR 2021

BOOK REVIEWS 2025
Chris Busby, Wings of Death: Nuclear Pollution and Human Health. *David Hand and Martin Crowder,* Practical and Longitudinal Data Analysis.

Indexed or abstracted by 'BIOSIS', 'Cambridge Scientific Abstracts', 'Chronic Diseases in Canada', 'Current Awareness in Biological Sciences', 'Current Contents', 'Current Index to Statistics', 'Engineering in Medicine and Biology', 'Excerpta Medica', 'Executive Sciences Inst. Inc.', 'Paediatric and Perinatal Epidemiology', 'SCISEARCH Database', 'Statistical Theory and Method Abstracts'.

Issue No. 18, 30 September 1997

rhDNase as an Example of Recurrent Event Analysis 2029
T. M. Therneau and S. A. Hamilton

An Empirical Comparison of Two Semi-parametric Approaches for the Estimation of Covariate Effects from Multivariate Failure Time Data 2049
S. Gao and X.-H. Zhou

The Design and Analysis of Paired Cluster Randomized Trials: An Application of Meta-analysis Techniques 2063
S. G. Thompson, S. D. M. Pyke and R. J. Hardy

Surveillance Systems for Monitoring the Development of Spatial Patterns 2081
P. A. Rogerson

Controlling False Positive Rates in Prognostic Factor Analyses with Small Samples 2095
Q. Liu, Y. Li and J. M. Boyett

First Year Serologic Response to Treatment for Syphilis: a Model for Prediction of Seroreversion 2103
M. S. Rose, G. H. Fick, B. Romanowski and E. J. Love

Ten-year Follow-up of ARIMA Forecasts of Attendances at Accident and Emergency Departments in the Trent Region 2117
P. C. Milner

Confidence Intervals for Differences in Correlated Binary Proportions 2127
W. L. May and W. D. Johnson

BOOK REVIEWS 2137
P. Armitage and H. A. Davids (eds), Advances in Biometry. *E. Marubini and M. G. Valsecchi,* Analysing Survival Data from Clinical Trials and Observational Studies. *Eberhard Gäbler,* Biometrische Methodik Pharmakologischer Tierexperimente.

Issue No. 19, 15 October 1997

Smooth Non-parametric Receiver Operating Characteristic (ROC) Curves for Continuous Diagnostic Tests 2143
K. H. Zou, W. J. Hall and D. E. Shapiro

Effects of Dependent Errors in the Assessment of Diagnostic Test Performance 2157
V. L. Torrance-Rynard and S. D. Walter

Estimating Correlations from Epidemiological Data in the Presence of Measurement Error 2177
K. B. G. Dear, M. L. Puterman and A. J. Dobson

A Markov Model for HIV Disease Progression Including the Effect of HIV Diagnosis and Treatment: Application to AIDS Prediction in England and Wales 2191
O. O. Aalen, V. T. Farewell, D. De Angelis, N. E. Day and O. N. Gill

Classification of the Effectiveness of Combination Treatments 2211
E. M. Laska, M. Meisner and D.-I. Tang

A Practical Approach for the Assessment of Bioequivalence Under Selected Higher-order Cross-over Designs 2229
J. Vuorinen

A Sequential Design for Psychophysical Experiments: An Application to Estimating Timing of Sensory Events 2245
W. F. Rosenberger and S. E. Grill

BOOK REVIEWS 2261
Frank B. Baker, Item Response Theory. Parameter Estimation Techniques. *Martin Bland*, An Introduction to Medical Statistics. *Priscilla E. Greenwood and Mikhail S. Nikulia*, A Guide to Chi-squared Testing. *Paul Strike*, MEDSAP. A Statistical Toolkit for Health Professionals Version 2.

Issue No. 20, 30 October 1997

Sizing Clinical Trials with Variable Endpoint Event Rates 2267
L. A. Moyé

The Latent Class Model for Multiple Binary Screening Tests 2283
T. S. Lau

A Simple Non-linear Model in Incidence Prediction 2297
T. Dyba, T. Hakulinen and L. Päivärinta

Hierarchical Polytomous Regression Models with Applications to Health Services Research 2311
M. J. Daniels and C. Gatsonis

A Method for Deciding Early Stopping of Inconclusive Case-control Studies in Settings Where Data are Stratified 2327
U. Strömberg

Estimating a Delay Distribution from Incomplete Data, with Application to Reporting Lags for AIDS Cases 2339
N. G. Becker and J.-S. Cui

TUTORIAL IN BIOSTATISTICS 2349
Using the General Linear Mixed Model to Analyze Unbalanced Repeated Measures and Longitudinal Data
A. Cnaan, N. M. Laird and P. Slasor

BOOK REVIEWS 2381
Don McNeil, Epidemiological Research Methods. *Alvan R. Feinstein*, Multivariate Analysis: An Introduction. *Alan Agresti*, An Introduction to Categorical Data Analysis. *Christopher M. Bishop*, Neural Networks for Pattern Recognition. *Chris Chatfield*, The Analysis of Time Series—An Introduction

Issue No. 21, 15 November 1997

A Semiparametric Estimate of Extra-Poisson Variation for Vital Rates 2389
M. P. Fay and E. J. Feuer

Analysis of Ectopic Pregnancy Data Using Marginal and Conditional Models 2403
A. Hadgu, G. Koch and L. Westrom

Logistic Regression Models with Missing Covariate Values for Complex Survey Data 2419
S. Gao and S. L. Hui

Local Estimation of Smooth Curves for Longitudinal Data 2429
R. A. Betensky

A Revised Assessment of the HIV/AIDS Incubation Period, Assuming a Very Short Early Period of High Infectivity and Using Only San Francisco Public Health Data on Prevalence and Incidence 2447
N. T. J. Bailey

Pre-AIDS Mortality in the Edinburgh City Hospital HIV Cohort 2459
S. R. Seaman, R. P. Brettle and S. M. Gore

Construction of Hearing Percentiles in Women with Non-constant Variance from the Linear Mixed-effects Model 2475
C. H. Morrell, J. D. Pearson, L. J. Brant and S. Gordon-Salant

Multiple Testing to Establish Superiority/Equivalence of a New Treatment Compared with k Standard Treatments 2489
C. W. Dunnett and A. C. Tamhane

BOOK REVIEW 2507
Thomas J. Moore, Deadly Medicine: Why Tens of Thousands of Patients Died in America's Worst Drug Disaster.

Issue No. 22, 30 November 1997

Methods Correcting for Multiple Testing: Operating Characteristics 2511
B. W. Brown and K. Russell

Some Comments on Frequently Used Multiple Endpoint Adjustment Methods in Clinical Trials 2529
A. J. Sankoh, M. F. Huque and S. D. Dubey

Different Disease Rates in Two Populations: How Much is Due to Differences in Risk Factors? 2543
C. Lele and A. S. Whittemore

Bayes Estimates for Immunological Progression Rates in HIV Disease 2555
A. J. McNeil

Large Sample Bayesian Inference on the Parameters of the Proportional Hazard Models 2573
D. Faraggi and R. Simon

An Examination of Methods for Sample Size Recalculation During an Experiment 2587
R. A. Betensky and C. Tierney

TUTORIAL IN BIOSTATISTICS 2599
A Review of Tests for Detecting a Monotone Dose-response Relationship with Ordinal Response Data
C. Chuang-Stein and A. Agresti

LETTERS TO THE EDITOR 2619

VOLUME CONTENTS ISSUES 17–24 2971

BOOK REVIEWS 2627
M. Daniel Sloan, Using Designed Experiments to Shrink Health Care Costs.
R. J. Carroll, D. Ruppert and L. A. Stefanski, Measurement Error in Nonlinear Models.
M. J. Campbell and T. D. V. Swinscow, Statistics at Square One. *L. Beolchi and M. H. Kuhn,* Medical Imaging-Analysis of Multimodality 2D/3D Image.

Issue No. 23, 15 December 1997

Effects of Record Linkage Errors on Registry-based Follow-up Studies 2633
H. Brenner, I. Schmidtmann and C. Stegmaier

Comparing Risk-adjustment Methods for Provider Profiling 2645
E. R. DeLong, E. D. Peterson, D. M. DeLong, L. H. Muhlbaier, S. Hackett and D. B. Mark

Multi-level Models for Longitudinal Growth Norms 2665
H. Pan and H. Goldstein

Discriminant Analysis Using the Unweighted Sum of Binary Variables: A Comparison of Model Selection Methods 2679
D. R. Langbehn and R. F. Woolson

Optimal Three-stage Designs for Phase II Cancer Clinical Trials 2701
T. T. Chen

An Imputation Method for Non-ignorable Missing Data in Studies of Blood Pressure 2713
N. R. Cook

Parametric and Non-parametric Tests for the Overall Comparison of Several Treatments to a Control When Treatment is Expected to Increase Variability 2729
J. F. Troendle, R. C. Blair, D. Rumsey and P. Moke

Investigating Underlying Risk as a Source of Heterogeneity in Meta-analysis 2741
S. G. Thompson, T. C. Smith and S. J. Sharp

BOOK REVIEWS 2759
Chris A. Glasbey and Graham W. Horgan, Image Analysis for the Biological Sciences. *Anders Wallgren, Britt Wallgren, Rolf Persson, Ulf Jorner and Jan-Aage Haaland,* Graphing Statistics and Data. *Merri Eerola,* Probabilistic Causality in Longitudinal Studies. *A. M. Kshirsagar and W. B. Smith,* Growth Curves.

ANNOUNCEMENT 2763

Issue No. 24, 30 December 1997

Papers from the International Meetings of the International Society for Clinical Biostatistics

Preface 2765

ISCB Committee 2766

Opening Address: A Biostatistical Tribute to Ignaz Philip Semmelweis 2767
M. Buyse

The Future of Biostatistics: Expecting the Unexpected 2773
H. C. Van Houwelingen

Simplified Estimation of Age-Specific Reference Intervals for Skewed Data 2785
E. M. Wright and P. Royston

Estimating Sample Size for Continuous Outcomes, Comparing More than Two Parallel Groups with Unequal Sizes 2805
J. Singer

Resampling and Cross-validation Techniques: A Tool to Reduce Bias Caused by Model Building? 2813
M. Schumacher, N. Holländer and W. Sauerbrei

On the Statistical Modelling of Coronary Arteriographic Data: Dynamics of Coronary Atherosclerosis Related to Systemic and Focal Parameters 2829
A. H. Zwinderman, J. W. Jukema, A. J. van Boven and J. H. C. Reiber

Clustered Binary Logistic Regression in Teratology Data Using a Finite Mixture Distribution 2843
J. G. Morel and N. K. Neerchal

Linearly Divergent Treatment Effects in Clinical Trials with Repeated Measures: Efficient Analysis Using Summary Statistics 2855
L. J. Frison and S. J. Pocock

Simple Models for Repeated Ordinal Responses with an Application to a Seasonal Rhinitis Clinical Trial 2873
J. K. Lindsey, B. Jones and A. F. Ebbutt

Variation in Baseline Risk as an Explanation of Heterogeneity in Meta-analysis 2883
S. D. Walter

A Prospectively Planned Cumulative Meta-analysis Applied to a Series of Concurrent Clinical Trials 2901
A. Whitehead

Incorporation of Sequential Trials into a Fixed Effects Meta-analysis 2915
S. Todd

CORRECTIONS 2927

BOOK REVIEWS 2929

J. Paling, Up to your Armpits in Alligators? How to Sort Out What Risks are Worth Worrying About. *I. Chalmers and D. G. Altman (eds),* Systematic Review. *Jessica M. Utts,* Seeing Through Statistics. *David Bowers,* Statistics from Scratch: An Introduction for Health Care Professionals. *David G. Kleinbaum,* Survival Analysis: A Self-Learning Text. *Jeffrey C. Hoch and Alan S. Stern,* NMR Data Processing.

Acknowledgement 2937

Author Index 2941

Subject Index 2945